What is claimed is:

1. A method for treating a patient having a disease characterized by an aberrant MAP kinase signaling pathway, the method comprising identifying a patient having the disease by detecting an increased level of phosphorylation of at least one phosphoprotein identified in Table 1 in a biological sample obtained from the patient, and administering to the patient an effective amount of a Raf kinase inhibitor.

2. The method of Claim 1, wherein the disease characterized by an aberrant MAP kinase signaling pathway is a cancer.

3. The method of Claim 2, wherein the cancer is selected from the group consisting of cancer cell is selected from the group consisting of a melanoma, a colorectal cancer, an ovarian cancer, a glioma, an adenocarcinoma, a sarcoma, a breast cancer, a lung cancer and a liver cancer.

4. The method of Claim 3, wherein the cancer is a melanoma.

5. The method of Claim 1, wherein the level of phosphorylation of the serine 25 residue or serine 38 residue of Op18 is detected.

6. The method of Claim 1, wherein the level of phosphorylation of the serine 25 residue of Op18 is detected.

7. The method of Claim 1, wherein the biological sample is obtained from a cell or cells, a tissue or tissues, blood, serum, stool, urine, sputum, amniotic fluid or a bone tissue biopsy.

8. The method of Claim 7, wherein the biological sample is skin cells.

9. A method for monitoring the efficacy of treatment of a disease characterized by an aberrant MAP kinase signaling pathway in a patient by administration of a Raf kinase inhibitor, the method comprising:

a) measuring the level of phosphorylation of at least one phosphoprotein identified in Table 1 in a biological sample obtained from the patient prior to treatment;

b) measuring the level of phosphorylation of the phosphoprotein in another biological sample obtained from the patient post-treatment; and

c) comparing the level of phosphorylation of the phosphoprotein in both samples, wherein a decrease in the level of phosphorylation of the phosphoprotein in the biological sample obtained post-treatment relative to the level of phosphorylation of the phosphoprotein in the biological sample obtained prior to treatment is indicative of the efficacy of the treatment.

10. The method of Claim 9, wherein the disease characterized by an aberrant MAP kinase signaling pathway is cancer.

12. The method of Claim 9, wherein the cancer is selected from the group consisting of a melanoma, a colorectal cancer, an ovarian cancer, a glioma, an adenocarcinoma, a sarcoma, a breast cancer, a lung cancer and a liver cancer.

11. The method of Claim 9, wherein said measuring step utilizes an antibody.

12. The method of Claim 11 wherein said antibody binds to phosphorylated Oncoprotein 18.

13. A method for diagnosing a disease characterized by an aberrant MAP kinase signaling pathway in a patient, the method comprising:

a) detecting a level of phosphorylation of at least one phosphoprotein identified in Table 1 in a test biological sample comprising the at least one protein obtained from the patient; and

b) comparing the level of phosphorylation of the at least one phosphoprotein in the test biological sample with the level of phosphorylation of the phosphoprotein in a normal sample obtained from the patient or from another source, wherein a higher level of phosphorylation in the test biological sample as compared to the level of phosphorylation in the normal sample is indicative of the presence of the disease characterized by an aberrant MAP kinase signaling pathway in the patient.

14. The method of Claim 13, wherein the disease characterized by an aberrant MAP kinase signaling pathway is a cancer.

15. The method of Claim 14 wherein the cancer is selected from the group consisting of cancer cell is selected from the group consisting of a melanoma, a colorectal cancer, an ovarian cancer, a glioma, an adenocarcinoma, a sarcoma, a breast cancer, a lung cancer and a liver cancer.

16. The method of Claim 14, wherein the cancer is a melanoma.

17. The method of Claim 13,wherein the level of phosphorylation of the serine 25 residue or serine 38 residue of Op18 is detected.

18. The method of Claim 13, wherein the level of phosphorylation of the serine 25 residue of Op18 is detected.

19. The method of Claim 13, wherein the biological sample is obtained from a cell or cells, a tissue or tissues, blood, serum, stool, urine, sputum, amniotic fluid or a bone tissue biopsy.

20. The method of Claim 19, wherein the biological sample is skin cells.

21. A method for monitoring the progression of a disease characterized by an aberrant MAP kinase signaling pathway in a patient, the method comprising measuring a level of phosphorylation of at least one phosphoprotein identified in Table 1 over time in a biological sample obtained from the patient, wherein an increase in the level of phosphorylation of the phosphoprotein over time is indicative of the progression of the disorder in the patient.

22 The method of Claim 21, wherein the disease characterized by an aberrant MAP kinase signaling pathway is a cancer.

23. The method of Claim 22, wherein the cancer is selected from the group consisting of cancer cell is selected from the group consisting of a melanoma, a colorectal cancer, an ovarian cancer, a glioma, an adenocarcinoma, a sarcoma, a breast cancer, a lung cancer and a liver cancer.

24. The method of Claim 21, wherein the level of phosphorylation of the serine 25 residue or serine 38 residue of Op18 is detected.

25. The method of Claim 21, wherein the level of phosphorylation of the serine 25 residue of Op18 is detected.